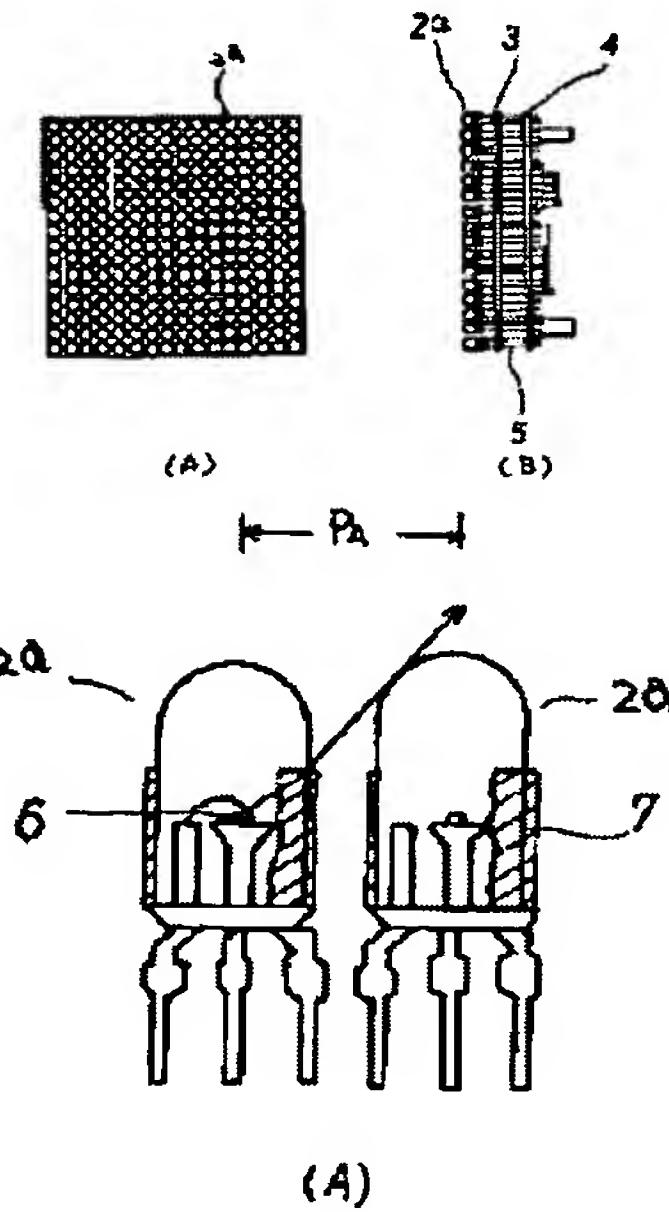


**DOT MATRIX LED UNIT**

**Publication number:** JP5027688  
**Publication date:** 1993-02-05  
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**Classification:**  
- **international:** G09F9/33; H01L33/00; G09F9/33; H01L33/00; (IPC1-7): G09F9/33; H01L33/00  
- **European:**  
**Application number:** JP19910178060 19910718  
**Priority number(s):** JP19910178060 19910718

**Report a data error here****Abstract of JP5027688**

**PURPOSE:** To improve the display performance of a dot matrix LED unit for which a measure is taken to stop a LED lamp side direction light leak without using a case. **CONSTITUTION:** The unit consists of plural dot matrix type light emitting diode lamps 2a, a black color printed board 3 and a printed board 4 on which parts are mounted. In the outer peripheral of the sealing resin section of the light emitting diode lamp 2a, the region, which includes the position higher than a light emitting diode chip 6 location, is covered by a light opaque type material to make a measure against a light leak in the side direction thus, the display visibility is improved and by changing the height, the maximum field of view angle is adjusted. Furthermore, the forward light radiation efficiency is improved by coating a light reflective material on the inside of a light opaque section 7.



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